

WHAT IS CLAIMED IS:

1. An optical observation apparatus including:

an optical system (2) which produces an image of the object (1) being observed, and a video device (7) for recording the image and for producing an image signal representative of the image,

characterised in that

the video device (7) includes a first memory (71) for temporary storage of the image signal, a second memory (73) in data communication (77) with the first memory (71), and a control device (75) in control communication (76B, 76C) with both memories (71, 73) for controlling the storage procedure and data transfer from the first to the second memory, wherein the control device is adapted for controlling the storage procedure and the data transfer in such a way that overwriting of such data which are stored in the first memory (71) and which have already been stored a given period of time in the first memory is effected, and that transfer of the content of the first memory (71) to the second memory (73) takes place as a reaction to a trigger signal.

2. An optical observation apparatus according to claim 1 characterised in that the data communication (77) between the first and second memories is designed for transfer at a high data rate.

3. An optical observation apparatus according to claim 1 characterised in that the second memory (73) has a memory capacity which is at least as twice as high as that of the first memory (71).

4. An optical observation apparatus according to claim 1 characterised in that the second memory (73) is adapted to be replaceable.

5. An optical observation apparatus according to claim 4 characterised in that there is a third memory (80) which is in data communication (81, 82) both with the first memory (71) and also with the second memory (73) and in signal communication (83) with the control device (75).

6. An optical observation apparatus according to claim 1 characterised in that the optical system (2a, 2b) is a stereoscopic optical system, that the image produced by the optical system (2a, 2b) includes two stereoscopic partial images and that the video device includes two first and two second memories, a respective one for each stereoscopic partial image.

7. An optical observation apparatus according to claim 6 characterised in that the optical system for each stereoscopic partial image includes its own observation channel (20a, 20b) and that a first memory and a second memory are associated with each observation channel (20a, 20b).

8. An optical observation apparatus according to claim 1 characterised in that the video device (7) includes a still camera.

9. An optical observation apparatus according to claim 1 characterised in that it is in the form of an operation microscope or an endoscope.